

Figure 1

1 MQTCPLAEPG HVSQALGTLL FLAASLSAQN EGWDSPICTE GVSVSWGEN
51 TVMSCNISNA FSHVNIKLRA HGQESAIFNE VAPGYFSRDG WQLQVQGGVA
101 QLVIKGARDS HAGLYMWHLV GHQRNNRQVT LEVSGAEPOS APDTGFWPVP
151 AVVTAVFILL VALYMFAWYR CRCSQQRREK KFFLLEPQMK VAALRAGAQ
201 GLSRASAELW TPDSEPTPRP LALVFKPSPL GALELLSPQP LFPYAADP*

Figure 2

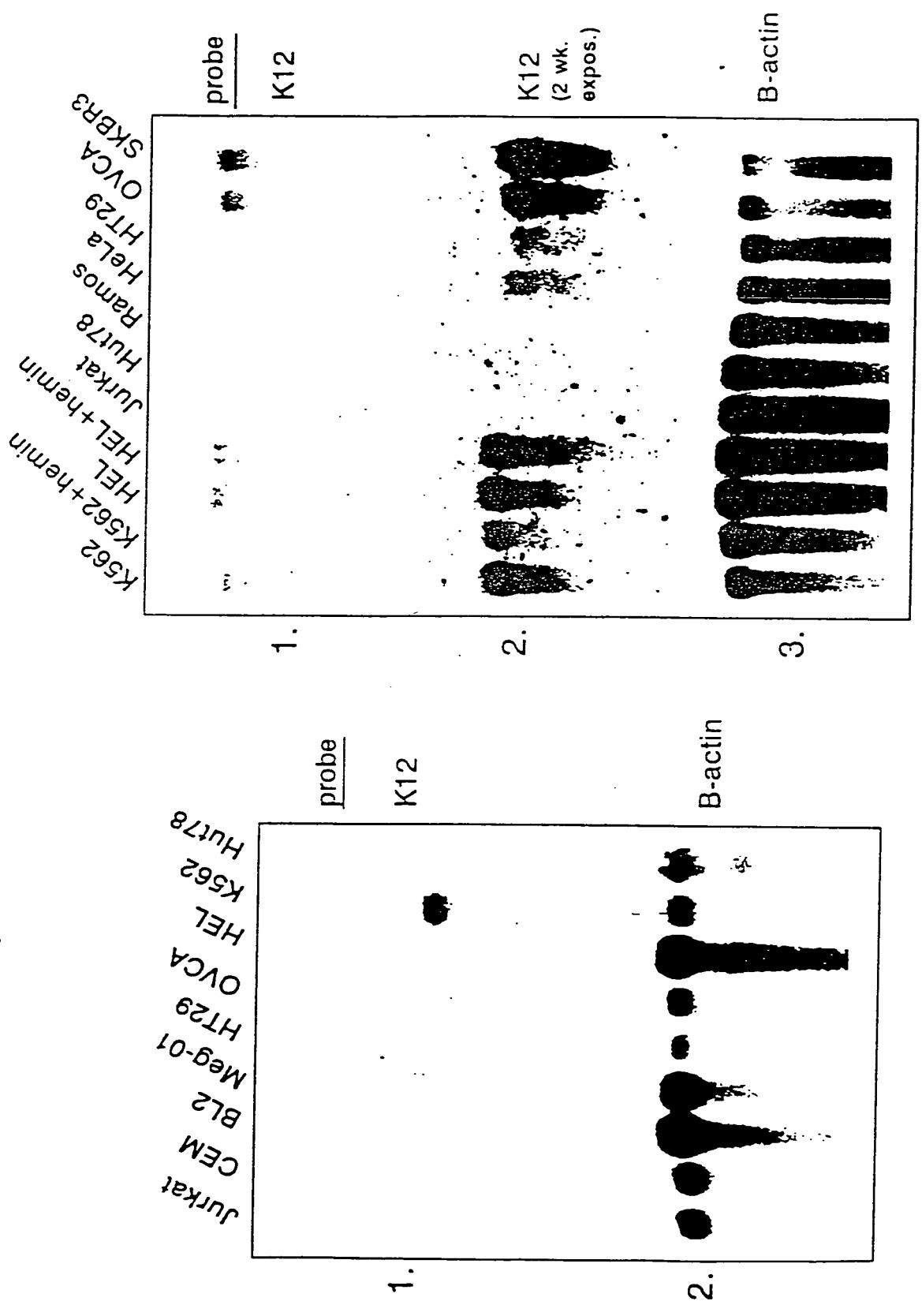
λ 12 promoter (1-195) and cDNA (196-2180) sequence

1 ATTCCTGCTT CCTTTAGCGT GAACGCGGGT CGGGTGCCTC CCGTGAAATA
51 ATAAATTCAAC CGTCACGCTT GTTGTGAACG CGGGTGGTTC CCGAAACTTG
101 GAGGCTTCCC GTAAACCCAG CTCTTCCTC ATCTGGGAGG TGGGTCCCAG
151 GCGGGTCCGC CGCCTCCTCC CTGGCCCCCTC CCTCTCGTGT CTTTCATTT
↓
201 CCTGGGGCTC CGGGGCGCGG AGAAGCTGCA TCCCAGAGGA GCGCGTCCAG
251 GAGCGGACCC GGGAGTGTGTT CAAGAGCCAG TGACAAGGAC CAGGGGCCA
301 AGTCCCACCA GCCATGCAGA CCTGCCCTGC GGCATTCCTT GGCCACGTTT
351 CCCAGGCCCT TGGGACCCCTC CTGTTTTGG CTGCCTCCTT GAGTGCTCAG
401 AATGAAGGCT GGGACAGCCC CATCTGCACA GAGGGGGTAG TCTCTGTGTC
451 TTGGGGCGAG AACACCGTCA TGTCTGCCTA CATCTCCAAC GCCTTCTCCC
501 ATGTCAACAT CAAGCTGCGT GCCCACGGC AGGAGAGCGC CATCTCAAT
551 GAGGTGGCTC CAGGCTACTT CTCCCAGGAC GGCTGGCAGC TCCAGGTTCA
601 GGGAGGCCTG GCACAGCTGG TGATCAAAGG CGCCCGGGAC TCCCAGGTTG
651 GGCTGTACAT GTGGCACCTC GTGGGACACC AGAGAAATAA CAGACAAGTC
701 ACGCTGGAGG TTTCAGGTGC AGAACCCAG TCCGCCCTG ACACGTGGTT
751 CTGGCCTGTG CCAGCGGTGG TCACTGCTGT CTTCATCCTC TTGGTCGCTC
801 TGGTCATGTT CGCCTGGTAC AGGTGCCGCT GTTCCCAGCA ACGCCGGAG
851 AAGAAGTTCT TCCTCCTAGA ACCCCAGATG AAGGTGGCAG CCCTCAGAGC
901 GGGAGCCCAG CAGGGCCTGA GCAGAGCCCTC CGCTGAACCTG TGGACCCAG
951 ACTCCGAGCC CACCCCAAGG CCGCTGGCAC TGGTGTCAA ACCCTCACCA
1001 CTTGGAGCCC TGGAGCTGCT GTCCCCCCCAC ACCCTTGTGTT CCATATGCCG
1051 CAGACCCATA GCCGCCTGCA AGGCAGAGAG GACACAGGAG AGCCAGCCCT
1101 GAGTGCCGAC CTTGGGTGGC GGGGCCTGGG TCTCTCGTCC CACCCGGAGG
1151 GCACAGACAC CGGCTTGCTT GGCAGGGCTGG GCCTCTGTGT CACCCACTCC

1201 TGGGTGCGTG CAGACCCTTC CCCTCCACCC CCCAGGTCTT CCAAGCTCTG
1251 CTTCCTCAGT TTCCAAAATG GAACCACCTC ACCTCCGCAG CACCCGACTT
1301 ACCAGGACGC ATGCCCTCTC CTCTGCCCTC ATCAAACCCA CAGACCCGGA
1351 CTCCCTTTCT GCCACCCCCAG GCTGGTCCGG CCCCAGGTGT GGGGTCCGCT
1401 CTCTCCACTC CCAGGGCTCC GCGCCCAAGT GAGGGGGCCC CTGCCGGAGC
1451 CTCAGACACA CTGGAGTTCA GGGCTGGGGG GGCCTTGGCA CATAACCTGTC
1501 CCTTGGCTAT GAGCAGGCTT TGGGGGCCCT TCCGCGGCAG CCCCAGGGGC
1551 CGAGGTAGGG TCTGGGGGCT TAGAGGCTGG GATGGCTCCT GGCCCCACCG
1601 CCAGGGGGCA AGCGCAGGCC GGGCTGGGAG GCAGCGGCCGG CGGCTCGGGC
1651 TGGGGGGTCA GGTGGACGCT GCCTCCGGGG CTGGTCGCGC ATCCCTCAGT
1701 CCCTCGGCCA CCCGGGGGTC GCTCCCTCGT GCCCACCGCA CCTGCCGAGC
1751 CTCTTGGAC CCAGATCTGT TCATGCTTT GTCTCGTCA CTGCAGCGGG
1801 GCCCTTGAT GTCTTCATCT GTATGGGTG GAAAAATCAC CGGGAAATCCC
1851 CCTTCAGTTC TTTGAAAAAG TTCCATGACT CGAATATCTG AAATGAAGAA
1901 AACAAACCGA CTCACAAACC TCCAAGTAGC TCCAAATGCA ATTTTAAAAA
1951 TGGAAAACAA AAATCTGAAA GAAACGTCTT TAGTGGCTTT AAGCCCCAAA
2001 ACGTCCCTAA GGCGTCCTCG AGATGAAGAC GGGGGGGAGC CCCAGCCAGG
2051 TGGAGACCCC GCAGGACGCG GCAGCGCCCG GTGACCGAGG CCTCGCACAG
2101 CCGGCCGCC TGAGGGTCGG GCCGAGCCAG GGTCCAAGAG GGGCGCGTTT
2151 GTGTCTCGGG TTAAAATAAG GTTCCGTCCG

Figure 3 : K12 Expression

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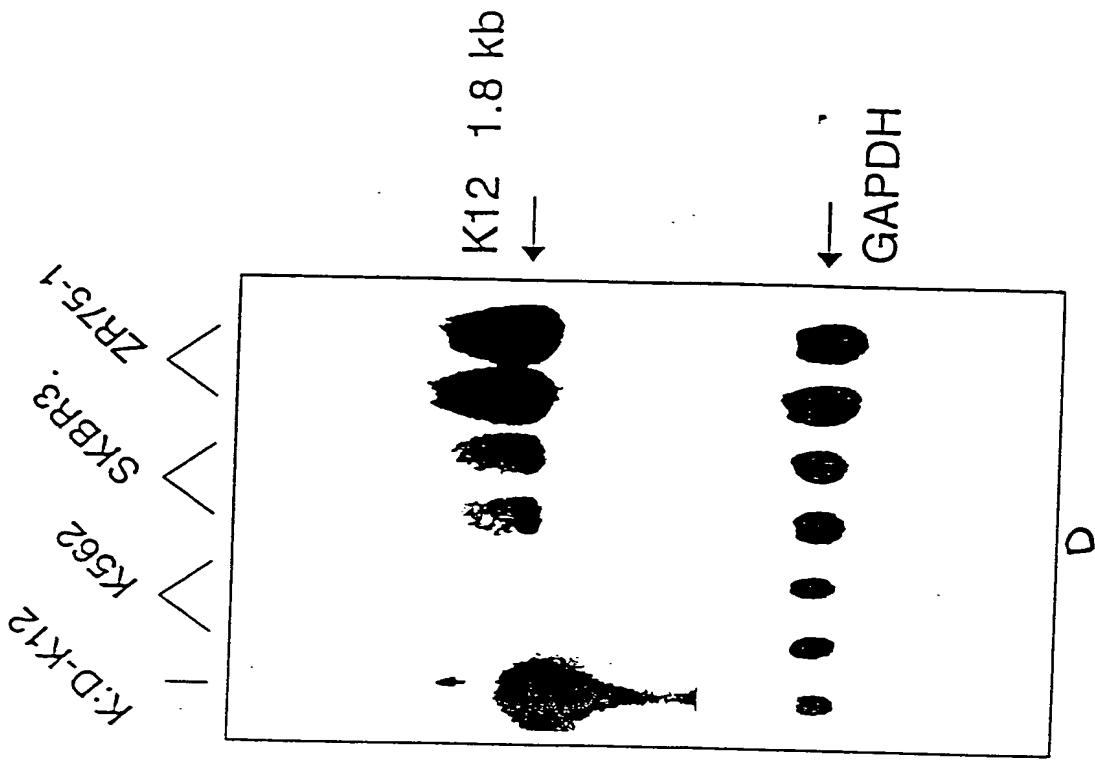
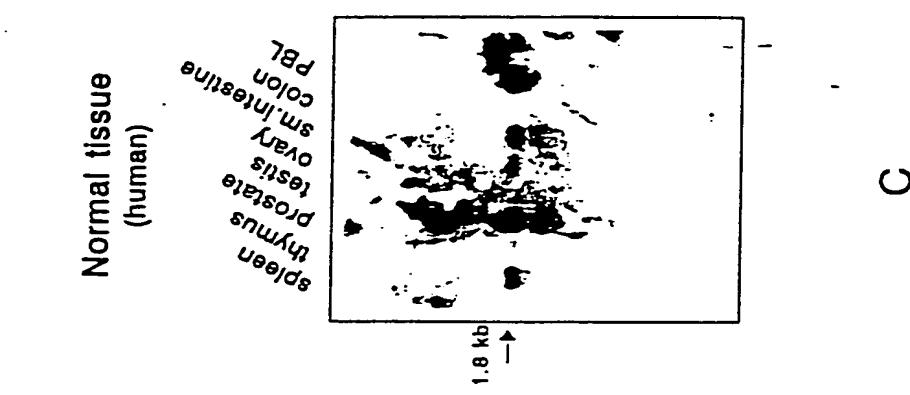


A

B

Figure 3 (cont)

Total RNA Northern



Western Blot Probed with Antiserum to K12

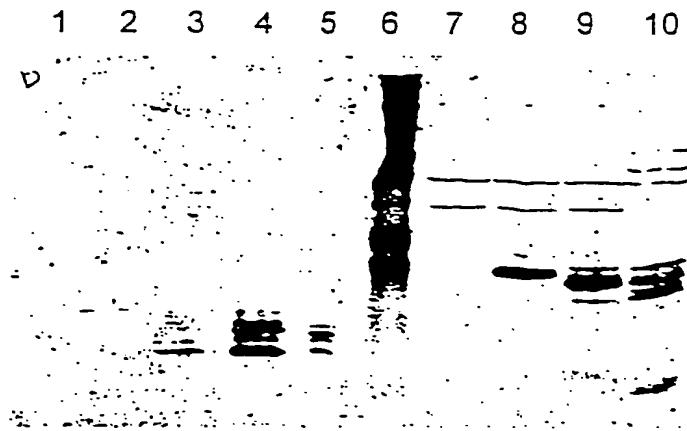


Figure 4. Western blot probed with antiserum to K12. Concentrated media from K562 cells transfected with:

- 1) empty vector
- 2) K12 and 7 amino acid flag
- 3) K12 with C terminus addition
- 4) Full length K12
- 5) ZR75-1 cells (not transfected)
- 6) Molecular weight standards (smallest is 32 kDa)

Soluble protein extracts from K562 cells transfected with :

- 7) empty vector
- 8) K12 with 7 amino acid flag
- 9) Full length K12
- 10) ZR75-1 cells (not transfected)

Figure 5: Subcellular Localization of K12 to the Golgi

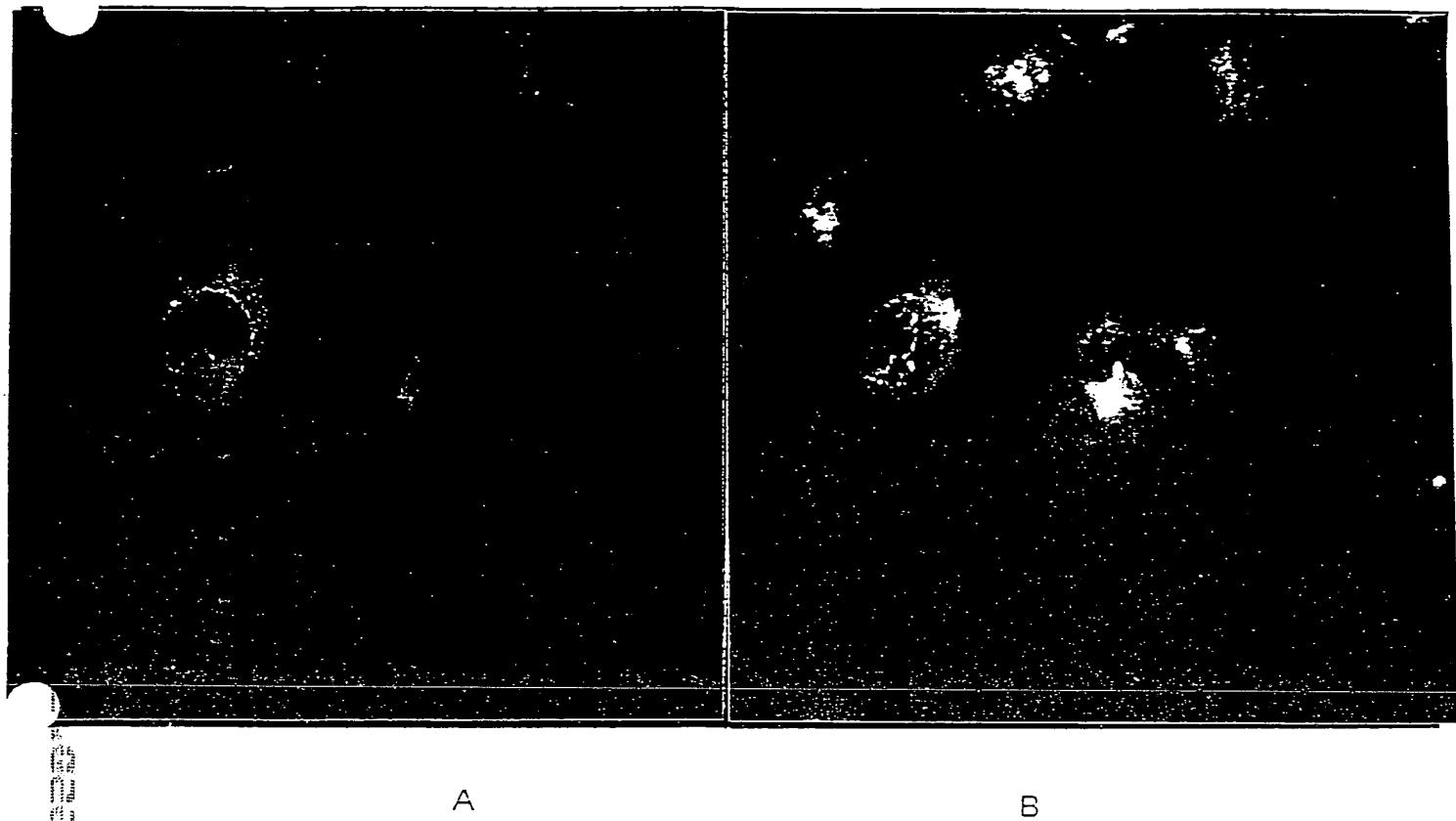


Figure 5

Same field of view of ZR75-1 cells that were grown on slides, acetone-fixed and double stained with,

A : antigen -purified anti-K12 polyclonal antibody followed by FITC-conjugated goat anti-rabbit IgG secondary antibody.

B: Rhodamine conjugated Wheat Germ Agglutinin (an immunocytochemical marker for Golgi bodies)



Figure 6 Immunoperoxidase staining of normal breast tissue, A, and colloid breast carcinoma, B, with monoclonal antibody 7C3 against K12. Panel C is a isotype matched P3 control. Dark brown staining reflects monoclonal antibody binding to K12 antigen.

**Conditioned Media Proliferation
Assay**

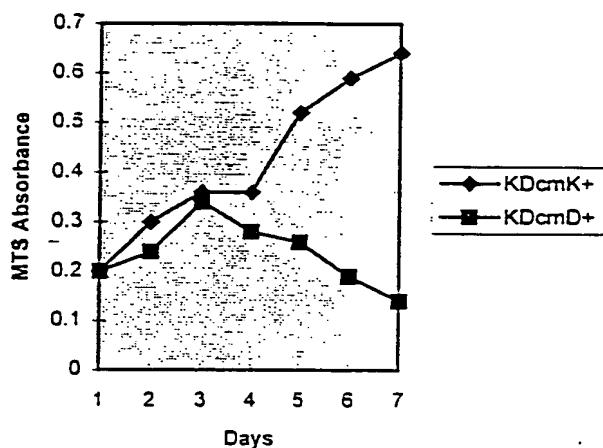


Figure 7: Growth Curves for K562 cells grown in conditioned media from :
KDcmK+, K562 cells secreting K12 into the media, or
KDcmD+, K562 cells transfected with an empty vector and producing no detectable K12 in media.